

Appl. No. 10/624,236
Docket No. H1535-00019
Reply to Office Action dated December 16, 2005

REMARKS/ARGUMENTS

As a result of this Amendment, claims 1-8 and 10-21 are under active consideration in the subject patent application. A PETITION FOR EXTENSION OF TIME has been filed, concurrently with this Amendment, extending the time for response to the Official Action one (1) month, from March 16, 2005, to April 16, 2005. The Commissioner for Patents is authorized to charge the amount of the fee, namely \$60.00, and any additional fees required, in connection with this Petition to Deposit Account No. 04-1679.

In the Official Action, the Examiner has:

- (1) objected to claims 12, 23, and 24;
- (2) rejected claim 1-8, 10-11, 14-21, and 23-24 under 35 U.S.C. 103(a) in view of a proposed combination of U.S. Patent No. 3,742,797, issued to Vecchi (the "Vecchi reference") with U.S. Patent No. 6,154,942, issued to Toeniskoetter (the "Toeniskoetter reference");
- (3) rejected claim 12 under 35 U.S.C. 103(a) in view of a proposed combination of the Vecchi reference, the Toeniskoetter reference, and U.S. Patent No. 1,968,595, issued to Beck (the "Beck reference");
- (4) rejected claim 13 under 35 U.S.C. 103(a) in view of the proposed combination of the Vecchi reference, the Toeniskoetter reference, and U.S. Patent No. 4,003,283, issued to Janiszewski (the "Janiszewski reference"); and

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(5) identified prior art made of record and not relied upon but considered pertinent to Applicant's disclosure.

With regard to Item 1, claim 12 has been amended so as to correct the inadvertent grammatical error identified by the Examiner. Claim 12 is definite. Claims 23 and 24 have been canceled without prejudice to Applicant's right to pursue the subject matter defined by those claims in related applications. Reconsideration and withdrawal of the objection to claim 12 are requested.

With regard to Item 2, Applicant respectfully submits that claims 1-8, 10-11, and 14-21 are patentable under 35 U.S.C. 103(a) over the proposed combination of Vecchi with Toeniskoetter. In order for a prima facie case of obviousness to be established, there must be some suggestion or motivation, either in the reference itself, or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, and the prior art reference must teach or suggest all of the claim limitations [emphasis add] (MPEP §2142). Neither Vecchi nor Toeniskoetter provide the requisite disclosure, suggestion, or motivation to support their combination as relied upon by the Examiner in rejecting claims 1-8, 10-11, and 14-21. Reconsideration is requested for the following reasons.

Applicant's invention, as defined by independent claims 1 and 10, provides a metal stamping system comprising a press including a ram having a bulbous protrusion projecting outwardly from an end and an upper die shoe including (i) a recess formed in a top surface, the recess being complementary to

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the bulbous protrusion, and (ii) a plurality of guide posts arranged in a pattern and projecting outwardly from a bottom surface. Advantageously, the bulbous protrusion on the ram is directly received within the complementary recess found in the top surface of the upper die shoe. Claims 1 and 10 have been amended to further define this structural aspect of the invention. A lower die shoe is positioned in confronting relation to the bottom surface, and includes a first plurality of open ended tubular guide bushings. A stripper-plate is positioned between the upper die shoe and the lower die shoe, and includes a second plurality of open-ended tubular guide bushings. Spring means are provided for separating the upper shoe from the lower shoe after each downward stroke of the ram.

Significantly, Applicant's upper die shoe does not require clamping or bolting to the press ram, such that the bulbous protrusion is freely received directly within the complementary recess, i.e., the bulbous protrusion is not fastened to the upper die shoe, but merely complementarily engages the recess in the top surface of the upper die shoe, during operation of the stamping system. Applicant's stripper plate alignment system provides an essentially independent guidance system for the die set that is not coupled to the guides controlling the reciprocating movement of the ram. In particular, Applicant requires a ram having a bulbous protrusion projecting outwardly from an end to be received in a recess formed in a top surface of an upper die shoe. The recess is complementary to the bulbous protrusion, but does not fixedly engage the

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bulbous protrusion. Applicant's stripper plate alignment system in combination with the upper die shoe complementary recess arrangement provides not only alignment but reduction in misalignment forces within the entire assembly. Vecchi simply does not consider such problems.

In contrast, Vecchi provides a die set comprising an upper punch holder and a lower die holder. An elevated stripper plate is disposed between and spaced from the holders and is movable vertically. Springs between the punch holder and the plate urge the plate away from the punch holder after each stroke. Vecchi's device appears to aid in the alignment of punches within the lower die shoe holes so that the punches do not hit the lower die face. However, any press misalignment will affect other mechanical parts and result in their early wear and failure. At col. 1, lines 39-42, Vecchi teaches that spaced above his die holder (upper die shoe) is ". . . a punch holder 8 that is supported by conventional means (not shown) by which the holder can be moved toward and away from the die holder." In other words, Vecchi suggests that a conventional, rigid connection is needed between his upper die shoe and the source of reciprocal motion, i.e., the ram of a conventional stamping press.

None of the foregoing even remotely suggests the structure of Applicant's bulbous protrusion freely received in a complementary recess in the top surface of an upper die shoe. The examiner has admitted as much by stating that Vecchi fails to disclose a ram with a bulbous protrusion. Thus the requisite suggestion

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and motivation to combine reference teachings must be provided by the Toeniskoetter reference which must, by necessity, teach or suggest all of the claim limitations. Toeniskoetter utterly fails to provide any teaching or suggestion of the structure defined by Applicant's claims.

The Toeniskoetter reference discloses a closure panel hemming apparatus including a lower platen that supports a lower hemming die and an upper platen spaced from and mounted above the lower platen that supports an upper hemming die. The upper and lower platens are vertically moveable for bringing the dies toward and away from one another. Guide posts interconnect the upper and lower platens and maintain alignment of the upper and lower platens during movement. A plurality of actuators each of the ball screw or rack and pinion type is driveably connected to draw together the upper and lower supports bringing the dies together for hemming. Significantly, at col.2, lines 63-67, Toeniskoetter states:

"...Dies 12,14 are mounted and moveable relative to each other by ball screw or rack and pinion actuators 16,116,216 for edge hemming the periphery of nested metal panels together to form a unitary closure panel such as a vehicle door, hood or trunk lid. As is hereinafter more fully described, hemming apparatus 10,110,210 are generally self contained machines that eliminate the conventional press for supporting and actuating the movement of the hemming dies. . . ." [emphasis added]

Thus Toeniskoetter teaches away from conventional presses, i.e., presses that utilize a reciprocating ram, in favor his ball screw or rack and pinion actuators. These are the very same conventional presses that Vecchi requires!

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The Examiner is reminded that a prior art reference teaches away from an invention "... if it suggests that the line of development flowing from the reference disclosure is unlikely to produce the result sought by the Applicant ...". In other words, "... doing what a prior art reference tries to avoid is the very antitheses of obviousness. ...". In re Braat, 918 F.2d 185, 16 U.S.P.Q.2d 1812, 1814 (C.A.F.C. 1990); In re Dow Chem. Co., 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1532 (C.A.F.C. 1988); Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579, 42 U.S.P.Q.2d 1378, 1383 (C.A.F.C. 1997); Baxter Int'l Inc. v. McGaw Inc., 149 F.3d 1321, 1328, 47 U.S.P.Q.2d 1225, 1230 (C.A.F.C. 1998); In re Gurley, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1131 (C.A.F.C. 1994); and In re Buehler, 515 F.2d 1134, 1141, 185 U.S.P.Q. 781, 787 (C.C.P.A. 1975). Throughout Applicants' specification, drawings, and in each and every claim, Applicants' desire for an upper die shoe that is not clamped or bolted to a press ram, such that a bulbous protrusion located on an end of that ram is freely received directly within a complementary recess formed in a top surface of an upper die shoe, i.e., the bulbous protrusion is not fastened to the upper die shoe, but merely complementarily engages the recess in the top surface during operation of an otherwise conventional stamping system is manifest - a result that Toeniskoetter clearly wishes to avoid.

Moreover, the Examiner has utterly mischaracterized the disclosure of the Toeniskoetter reference. In particular, the Examiner identifies Toeniskoetter's upper die shoe (14) as a ram. This structure, as described in Toeniskoetter's

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specification and depicted in his drawings, could not possibly be a ram as that term is used by those of ordinary skill. In addition the Examiner points to portions of the inner surfaces of Toeniskoetter's die shoe as providing a recess that corresponds with the recess Applicant defines in a top surface of an upper die shoe. It is well known to those of skill in the art that a ram (if Toeniskoetter were to use one at all) is normally, fixedly engaged with the the outer portions of the die tools. However, this is moot since Toeniskoetter clearly discards conventional press technology (e.g., a reciprocating ram in a conventional stamping press) for supporting and actuating the movement of his hemming dies in favor of ball screw or rack and pinion actuators (16,116, 216).

The Examiner has not pointed to any portion of the Toeniskoetter reference that provides a bulbous protrusion that is freely received directly within a complementary recess defined in the top surface of an upper die shoe, i.e., the bulbous protrusion is not fastened to the upper die shoe, but merely complementarily engages the recess in the top surface of the upper die shoe, during operation of the stamping system. Thus, the combination of Vecchi and Toeniskoetter, when viewed as a whole, fails to teach or suggest the invention defined by independent claims 1 and 10, or dependent claims 2-8, and 14-21. Moreover, Toeniskoetter clearly teaches away from the use of conventional press technology such as a reciprocating ram in a conventional stamping press for supporting and actuating the movement of his hemming dies in favor of ball

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screw or rack and pinion actuators. Claims 1-8, 10-11, 14-21, are patentable over the proposed combination of Vecchi and Toeniskoetter.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-8, 10-11, 14-21, under 35 U.S.C. 103(a) are requested.

With regard to Items 3 and 4, the Examiner has also relied upon the Beck and Janiszewski references to supply missing teachings to the failed combination of Vecchi and Toeniskoetter. However, neither Beck nor Janiszewski teach or suggest, in any way, a metal stamping system comprising a press including a ram having a bulbous protrusion projecting outwardly from an end and an upper die shoe including (i) a recess formed in a top surface, the recess being complementary to the bulbous protrusion, and (ii) a plurality of guide posts arranged in a pattern and projecting outwardly from a bottom surface.

The Examiner has relied upon Beck for the disclosure of an upper die shoe having six guide posts. However, Beck also teaches a pair of pistons that are mounted on an upper surface of his head casting 4 and within cylinders 26. This is directly contrary to the teachings of Toeniskoetter who states that a conventional press for supporting and actuating the movement of the hemming dies be eliminated in favor of ball screw or rack and pinion actuators. Thus the teachings that are admittedly missing from Vecchi and Toeniskoetter are also missing from Beck. Claim 12 is patentable over the proposed combination of Vecchi, Toeniskoetter, and Beck.

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Janiszewski teaches a die set including a punch holder, a die shoe, and an assembly comprising an upper leader pin portion mounted on the punch holder and having a tapered surface decreasing in diameter remote from the punch holder, and a lower pin portion connected to the die shoe. A sleeve is arranged around the lower leader pin, and has a bore located in the path of travel of upper leader pin.

Janiszewski does not teach or suggest, in any way, a ram having a bulbous protrusion projecting outwardly from an end or an upper die shoe including a recess formed in a top surface that is complementary to the bulbous protrusion and that directly receives the bulbous protrusion. Furthermore, Janiszewski does not teach Applicant's separator plate or its guidance assembly as defined by claims 1 and 10. This structure is simply absent from Vecchi, Toeniskoetter, Beck and Janiszewski. Substituting, combining, or modifying Vecchi and Toeniskoetter in view of Beck and/or Janiszewski would not have motivated a person skilled in the art to conceive of Applicant's invention, without the use of impermissible hindsight vision afforded by Applicant's claimed invention. Thus, the proposed combination of Vecchi, Toeniskoetter, and Beck or Janiszewski fails to render the invention defined by claims 1 and 10 or their dependent claims, obvious.

With regard to Item 5, Applicant has considered the prior art references identified by the Examiner as pertinent and determined that none of them, taken

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alone, or in any valid combination with the Vecchi, Toeniskoetter, Beck, and Janiszewski references anticipates or renders obvious the present invention.

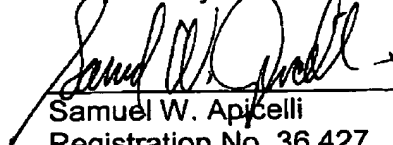
Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

If a telephone conference would be of assistance in advancing prosecution of the above-identified application, Applicant's undersigned Attorney invites the Examiner to telephone him at 717-237-5516.

Date:

4/11/05

Respectfully Submitted,



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